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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,533	10/28/2002	Ta-yung Yang	9939-US-PA	2158

31561 7590 06/19/2003

JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE
7 FLOOR-1, NO. 100
ROOSEVELT ROAD, SECTION 2
TAIPEI, 100
TAIWAN

EXAMINER	
LEJA, RONALD W	
ART UNIT	**PAPER NUMBER**
2836	

DATE MAILED: 06/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/065,533	YANG ET AL.	
	Examiner	Art Unit	
	Ronald W Leja	2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 October 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 October 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

1. Claims 2-4 are objected to because of the following informalities: In line 5 of Claim 2, a space is needed between "and" and "a" and in line 8, and "and" is possibly needed between "p-transistor" and "to". Claims 3 and 4 each need to be dependent from Claim 2 to correct for antecedent problems. Appropriate correction is required.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gersbach (5,598,313).

Gersbach discloses an overvoltage and ESD crowbar (Fig. 2) comprising a clamping transistor (Q1) and a mirror amplifier (14). The mirror amplifier comprises (for Claim 2) an n-transistor (Q2) having a gate coupled to the input of the mirror and a source connected to ground; a first p-transistor (Q4), having a drain, a gate and a source; and a second p-transistor (Q3), having a drain coupled to the output of the mirror amplifier, a gate coupled to the drain and the gate of the first p-transistor, and a source coupled to the source of the first p-transistor and to the input voltage (C) to form an amplifier for providing the amplified voltage to drive the clamping transistor in response to the overvoltage condition. Gersbach does not disclose the use of two resistors or the use of a speed-up capacitor and for Claim 5, a plurality of transistors providing the threshold. However, Gersbach discloses that (Q1) has a large drain-to-gate capacitance, which triggers the transistor on and lets the mirror become conductive. It would have been obvious to one having ordinary skill in the art to adjust this turn-on capacitance as desired by either adjusting the transistor (Q1) itself or by adding additional capacitance so as to achieve the desired quickness for turn-on; the faster the turn-on, the quicker the surge and/or ESD event can be alleviated. As far as the use of two resistors, the resistors are for turning-off the mirror and the clamping transistor under normal operation, Gersbach teaches the use of a resistance (Q5) for turning-off the mirror and inhibiting it for normal operation (see Col. 4, lines 52-55). Therefore, it would have been obvious to one

having ordinary skill in the art to utilize any resistance, such as two resistors for turning-off the mirror and clamping transistor, thereby not requiring a separate signal for the turning-off feature. Addressing the use of a plurality of transistors, it is well known within the protection art to utilize diode-coupled transistors as a well known equivalent to that of a diode and to utilize any number in series so as to be able to adjust the threshold as desired. Utilizing diode-coupled transistors allow for more like components when integrating the design, and thus, would have been obvious as a means to ease fabrication. Again any number connected in series would have been obvious as a means to offer the desired threshold for a particular application; resulting in increased applications for the design.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald W Leja whose telephone number is (703)308-2008. The examiner can normally be reached on mon-fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (703)308-3119. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3432 for regular communications and (703)305-3431 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3675.

Ronald W Leja
Primary Examiner
Art Unit 2836

rwl
June 16, 2003